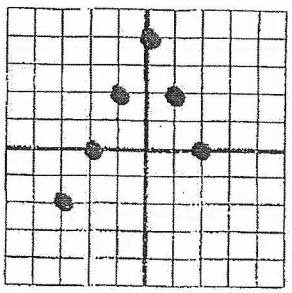
WORKSHEET – DOMAINS AND RANGES OF RELATIONS AND FUNCTIONS

{(2, 3), (-1, 5), (0, -1), (3, 5), (5, 0)}

Domain: $\{-1, 0, 2, 3, 5\}$

Range: $\{-1, 0, 3, 5\}$

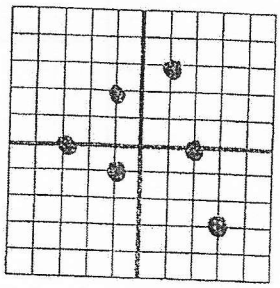
Function: (yes) no



Domain: $\{-3, -2, -1, 0, 1, 2\}$

Range: $\{-2, 0, 2, 4\}$

Function: (yes) no



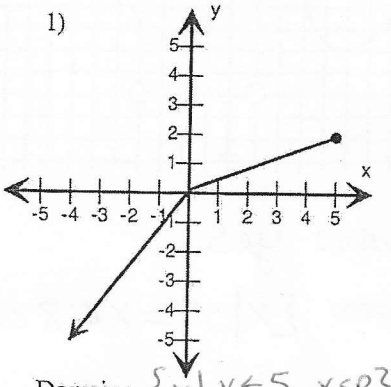
Domain: $\{-3, -1, 1, 2, 3\}$

Range: $\{-3, -1, 0, 2, 3\}$

Function: yes (no)

Find the Domain and Range for each graph.

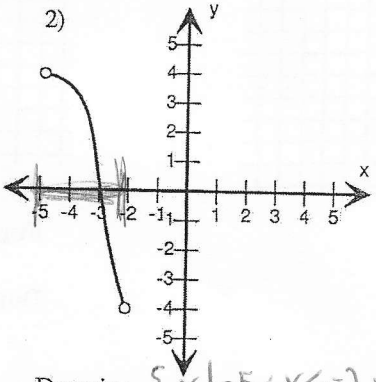
1)



Domain : $\{x \mid x \leq 5, x \in R\}$

Range : $\{y \mid y \leq 2, y \in R\}$

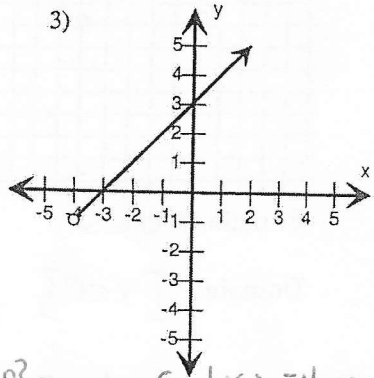
2)



Domain : $\{x \mid -5 < x < -2, x \in R\}$

Range : $\{y \mid -4 < y < 4, y \in R\}$

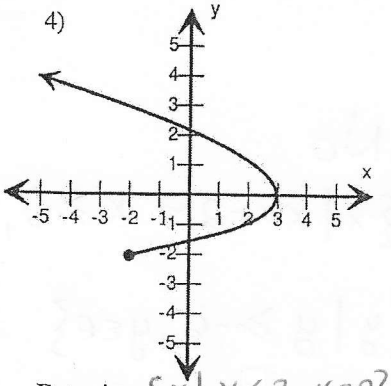
3)



Domain : $\{x \mid x > -4, x \in R\}$

Range : $\{y \mid y > -1, y \in R\}$

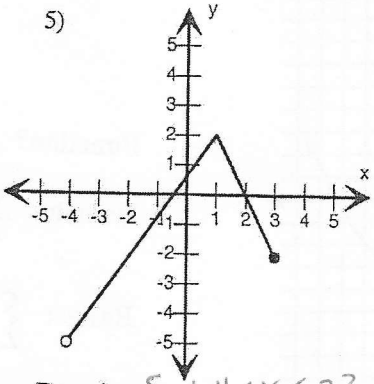
4)



Domain : $\{x \mid x \leq 3, x \in R\}$

Range : $\{y \mid y \geq 2, y \in R\}$

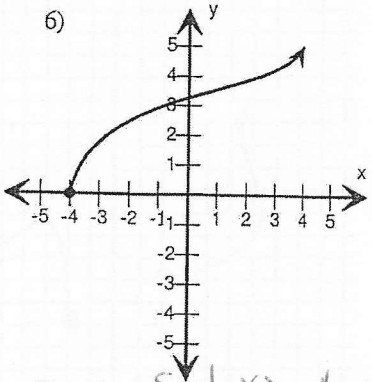
5)



Domain : $\{x \mid -4 < x \leq 3\}$

Range : $\{y \mid -5 < y \leq 2, y \in R\}$

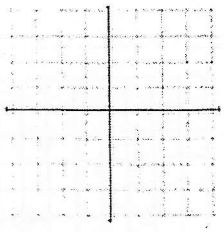
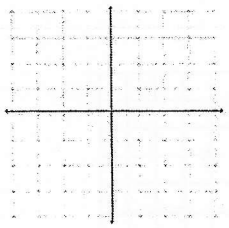
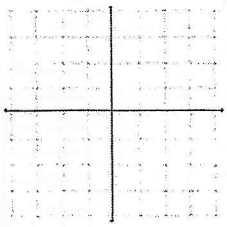
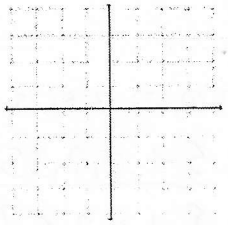
6)



Domain : $\{x \mid x \geq -4, x \in R\}$

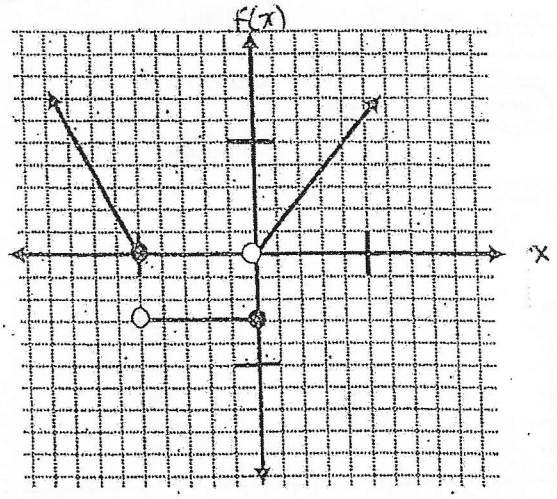
Range : $\{y \mid y \geq 0, y \in R\}$

Draw two functions and two non functions on the graphs below and determine their domains and ranges.

Answers vary.

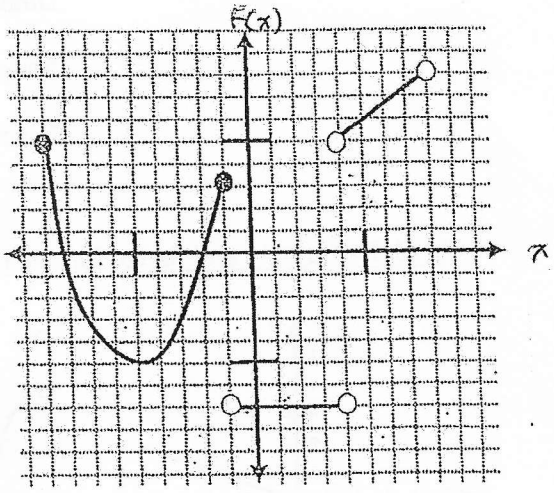
For each of the following, determine if the graph represents a function, the domain, and the range.



Function? yes

Domain: $\{x \in R\}$

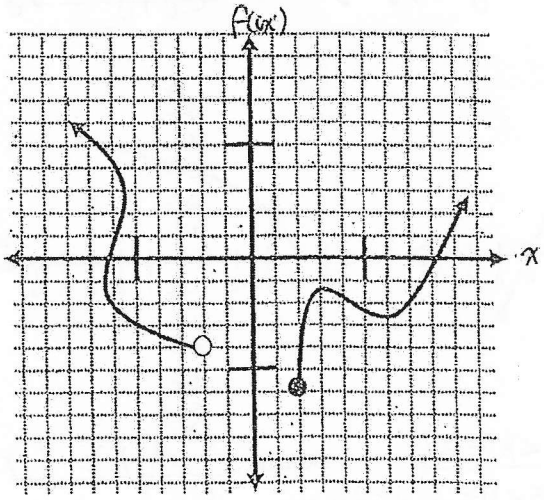
Range: $\{y \mid y=-3 \text{ or } y \geq 0, y \in R\}$



Function? yes

Domain: $\{x \mid -9 \leq x < 8 \text{ and } x \neq 4, x \in R\}$

Range: $\{y \mid y=-7 \text{ or } -5 \leq y < 8, y \in R\}$



Function? No

Domain: $\{x \mid x \leq -2 \text{ or } x \geq 2, x \in R\}$

Range: $\{y \mid y \geq -6, y \in R\}$